01 01 56 56	LMP	Go ahead, Houston.
01 01 56 58	CC	Roger. At 26 hours GET, we'll be switching our antennas back again at Madrid, and you can expect a glitch on your COMM system.
01 01 57 12	LMP	Roger.
01 01 57 17	CMP	Houston, Apollo 8.
01 01 57 18	CC	Go ahead, Jim.
01 01 57 21	CMP	I noticed that you skipped the IMU alignment for about 26 hours because we were still asleep. Do you want to include that again, or do you think it is required?
01 01 57 33	CC	Roger, Jim. We think it is going to be required prior to the next set of P23 sightings, and we're suggesting that it be put in at 27:45. We'll have a flight plan - a more complete flight plan update in here shortly.
01 01 57 51	CMP	Okay. Fine. We're in the process of having breakfast.
01 01 57 57	CC	Roger. Understand.
01 02 04 06	CC	Apollo 8, Houston.
01 02 04 11	CMP	Go ahead, Houston.
01 02 04 12	CC	The tape dumps are complete; it's rewound. You can go ahead and record in low bit rate if you ...
01 02 04 20	CMP	Roger. Will do.
01 02 41 22	CC	Apollo 8, Houston.
01 02 41 27	LMP	Go ahead, Houston. Apollo 8 here.

01 02 41 28	CC	Disregard. We were going to talk about the high gain, but you beat us to it.
01 02 41 35	LMP	Okay.
01 02 42 47	CC	Apollo 8, Houston.
01 02 42 50	CMP	Go ahead, Houston.
01 02 42 52	CC	Roger, Jim. We would like to take control of the tape for a few minutes to make sure that we got all that last dump. Over.
01 03 43 00	CMP	Okay. Stand byone.
01 02 43 02	CC	Roger.
01 02 43 03	CMP	You've got it.
01 02 43 04	CC	Thank you, sir.
01 02 44 14	LMP	Houston, Apollo 8.
01 02 44 16	CC	Apollo 8, Houston. Go ahead.
01 02 44 22	LMP	Roger. I just noticed that I can hear those RTC's coming through on normal voice.
01 02 44 44	CC	What does it sound like, Bill?
01 02 44 48	LMP	A little squeak.
01 02 46 34	CC	Apollo 8, Houston. Over.
01 02 46 39	LMP	Go ahead.
01 02 46 41	CC	Roger. I have a flight plan update for you sometime at your convenience.
01 02 46 47	LMP	Alright.
01 02 47 50	LMP	Ready to copy.
01 02 47 53	CC	Apollo 8, Houston. Were you calling? Over.
01 02 47 56	LMP	Roger. Ready to copy.

01 02 47 58	CC	Okay, Bill. This will be on page 2 dash 22 of your flight plan. For the command module pilot - I've already mentioned it to him - but at the top of the page, at about 27:45, actually, we would like him to do a P52, an IMU alignment, and then the P23 should be done as scheduled. Those four stars, Procyon, Regulus, Alphard, and Spica: we realize Alphard may not be too good a star, Regulus is about 3 degrees above the horizon, and Spica is at a 48-degree trunnion angle; so I guess what we are saying is if Jim has difficulty doing one set on each of those four stars, we suggest that he omit whichever one he is having difficulty with and pick it up by doing two sets on some other star that he likes. Over.
01 02 49 09	LMP	Roger. Understand.
01 02 49 10	CC	All right. In the lower right hand corner of page 2-22, the passive thermal control attitude should read "pitch 224 degrees, yaw 020."
01 02 49 29	LMP	Roger. Copy.
01 02 49 31	CC	And on the next page, at about 29 hours, you can resume the normal flight plan. We would like to make one addition; at 29:30, add a waste water dump. Even though one is not really required at that time, we would like to get the

		dump out of the way so we can track you uninterruptedly without any dumping, you know, as we are coming up on midcourse correction number 3. Over.
01 02 50 03	LMP	Roger.
01 02 50 06	CC	That's about all, Bill. You got any questions on this?
01 02 50 11	LMP	No, it looks pretty good. We've been saving up some water of our own to dump here, so that will work out all right.
01 02 50 18	CC	Very good. And don't ruin Jim's optics.
01 02 50 24	LMP	Right.
01 02 50 48	CC	Apollo 8, Houston.
01 02 50 51	LMP	Go.
01 02 50 52	CC	Roger. We would like POO in ACCEPT, please. We would like to send you up a P27. It's a LM state vector, going into the LM slot only, and we do not want you to transfer it over to the CSM.
01 02 51 24	CC	Apollo 8, Houston. Did you copy?
01 02 51 28	LMP	Roger. You got it.
01 02 51 34	CC	Okay. We got it. We're sending you a LM state vector, and we would like you not to transfer that vector over to the CSM slot.
01 02 51 40	LMP	Roger.
01 02 51 42	CC	Thank you.

END OF TAPE

01 02 55 36	CC	Apollo 8, Houston.
01 02 55 40	LMP	Apollo 8. Roger. Are you still planning an MCC 2 at 28 hours? Over.
01 02 55 48	CC	Stand by one, Bill. Bill, negative. Now that midcourse correction number 2 has been cancelled. It's magnitude was less than 1 foot per second, so we decided not to do it. Over.
01 02 56 12	LMP	Okay. Thank you.
01 02 56 14	CC	And you've got the computer again, if you go to BLOCK.
01 02 56 22	LMP	Okay.
01 02 58 29	LMP	Houston, Apollo 8.
01 02 58 32	CC	Apollo 8, Houston. Go ahead.
01 02 58 36	LMP	Are you still computing the pericynthian time of 6910.
01 02 58 45	CC	Stand by. We will get an update for you.
01 02 58 48	LMP	Okay.
01 02 59 40	CC	Apollo 8, Houston. Your 6910 pericynthian is still good plus or minus a minute, and we will get it down to a fine map measurement ...
01 03 26 08	CC	Apollo 8, Houston.
01 03 26 15	LMP	Roger. This is Apollo 8.
01 03 36 17	CC	Okay, Bill. We just got your readout on your voice tape, and we will be back with you on it shortly. Over.
01 03 36 27	LMP	Okay.

01 03 36 28	CMP	Houston, I'm going to be doing my alignment at this time. I'm in a good position for viewing the stars.
01 03 26 39	CC	Roger, Apollo 8.
01 04 18 13	CC	Apollo 8, this is Houston with voice check. Over.
01 04 18 19	CMP	Houston, Apollo 8. Read you loud and clear now. How us?
01 04 18 22	CC	Oh, good. Reading you loud and clear. One, two, three, four, five, five, four, three, two, one. Am I cutting in and out still? Over.
01 04 18 31	CMP	Nope. All the numbers are coming up nicely.
01 04 18 34	CC	Okay. Thank you, Jim.
01 04 19 27	CC	Apollo 8, Houston. We are going to switch antennas at 28:20. Stand by for our blitz.
01 04 19 36	CDR	Roger, Houston. And we will start passing thermal control, and we are maneuvering to P23.
01 04 19 42	CC	Roger. Understand; maneuvering to P23; I understand.
01 04 23 31	LMP	Houston, Apollo 8.
01 04 23 34	CC	Apollo 8, Houston. Go.
01 04 23 38	LMP	Roger. You copy high bit rate now for this P23?
01 04 23 43	CC	Negative, Bill. We are getting low bit rate now.

01 04 23 48	LMP	If you go high bit rate, we will not bother recording it.
01 04 27 52	CC	Roger. We just went to high bit rate.

END OF TAPE

01 05 03 39	CMP	Houston, Apollo 8.
01 05 03 44	CC	Apollo 8, Houston. Over.
01 05 03 51	CC	Apollo 8, this is Houston. Over.
01 05 03 55	CMP	Roger. Cislunar NAV accomplished. We did two sets on star 16, two sets on 22, and one set on 21.
01 05 04 07	CC	Roger. Understand P23 completed, two sets on 16, two on 22, and one on 21.
01 05 04 15	CMP	Roger. It was getting a little late, so we didn't want to start on 26.
01 05 04 19	CC	Roger. Understand, Jim.
01 05 07 18	LMP	Houston, Apollo 8.
01 05 07 22	CC	Apollo 8, Houston. Go ahead.
01 05 07 26	LMP	Is our previous PTC attitude okay for the next session?
01 05 07 32	CC	Roger, Bill. The one that we updated an hour or so ago, (i.e., pitch 224, yaw 020) is a good one.
01 05 07 43	LMP	224 20. Roger.
01 05 07 46	CC	Roger.
01 05 07 52	CC	Apollo 8, Houston. We will change antennas in about 2 minutes. You can expect a glitch in your COMM.
01 05 08 02	LMP	Roger.
01 05 08 03	CC	Roger.
01 05 08 04	LMP	How are all of the systems looking down there, Houston?

01 05 08 19	CC	Apollo 8, Houston. You are looking good here in all respects.
01 05 08 24	LMP	Okay.
01 05 17 52	CC	Apollo 8, Houston. Over.
01 05 18 01	CC	Apollo 8, this is Houston. Over.
01 05 18 14	CC	Apollo 8, this is Houston. Over.
01 05 23 26	CDR	Houston, Apollo 8. How do you read?
01 05 23 40	CDR	Houston, Apollo 8.
01 05 32 10	CDR	Houston, Apollo 8.
01 05 32 12	CC	Roger. Apollo 8, Houston. Go ahead.
01 05 32 17	CDR	Roger. We are dumping some water we collected here, and we are ready to dump the waste water down to 25 percent. Do you concur?
01 05 32 23	CC	Roger. We concur. We are standing by for your dump.
01 05 32 29	CDR	Alright. We've already started the other.
01 05 32 31	CC	Roger. Thank you.
01 05 36 40	CC	Apollo 8, Houston.
01 05 36 47	CC	Apollo 8, this is Houston. Over.
01 05 38 21	CC	Apollo 8, this is Houston. Over.
01 05 38 26	CDR	Roger. This is Apollo 8.
01 05 38 28	CC	Roger. We are getting geared up down here to do the first of the COMM checks. We will be doing an OMNI COMM check, which is on your flight plan, listed mode 7.8, and we will let you know when we are ready to proceed.

01 05 38 50	CDR	Roger.
01 05 40 01	CC	Apollo 8, Houston. Over.
01 05 40 05	LMP	Roger, Houston. We are dumping waste water now out of these nozzle template.
01 05 40 11	CC	Stand by. Looks good, Bill; 64 degrees. Over.
01 05 40 24	LMP	Roger. We just got an O_2 flow high from purging to vent line on the cabin.
01 05 40 32	CC	Roger. Understand.
01 05 40 47	CDR	How is everything in Houston.
01 05 40 51	CC	Oh, just fine, Frank. Everything down here is GO. How are you?
01 05 40 56	CDR	Fine. What is the news?
01 05 41 01	CC	Well, did you get the intergalactic news summary we sent up to you a couple of hours ago? It might have been during your rest period. We gave you a couple of football scores. One of them in particular was - I don't know if you copied that - Army 21, Navy 14. Over.
01 05 41 21	CDR	One, two, three, four, five, six, seven; testing out.
01 05 41 24	CMP	I got that one.
01 05 41 30	CC	Roger. The Cowboys were destroyed by the Cleveland Browns yesterday. The Pueblo crew is expected to be released. And I now hear our air-to-ground has got a lot of background noise. Stand by; we are going to go through these COMM test modes on page 223 of the flight plan. Over.

01 05 41 57	CDR	Roger.
01 05 42 03	CC	Apollo 8, Houston. Would you go S-band AUX switch to DOWN-VOICE BACKUP. Over.
01 05 42 11	CDR	DOWN-VOICE BACKUP. Roger and out.
01 05 42 13	CC	Thank you.
01 05 42 17	CDR	Houston, be advised that it looks like your twin bars are clipping your voice during your transmission.
01 05 42 25	CC	Roger. Understand. Are we still experiencing this intermittent condition that was there a few minutes ago?
01 05 42 33	CDR	Not always, but often in the beginning and in the end of your transmission.
01 05 42 39	CC	Roger. Understand. I'll give it a little extra time.
01 05 45 44	CC	Go.
01 05 45 52	CC	Apollo 8, Houston. Over.
01 05 46 01	CC	Apollo 8, Houston. Could you try to find us a better OMNI antenna? Over.
01 05 46 10	CDR	...
01 05 46 22	CC	Apollo 8, Houston. We are unable to read you on this OMNI antenna. Over.
01 05 46 54	CDR	Houston, Apollo 8. ...
01 05 47 07	CC	Apollo 8, this is Houston. Over.
01 05 47 47	CC	Apollo 8, Houston. We understand you are copying us. While we are trying to reestablish contact with you, would you put your optics

switch to zero? We show you are drifting off in trunnion and request that you zero your optics.

01 05 48 26 CC Apollo 8, Houston. We copy your optics zeroed, and how are you reading us now? Over.

01 05 49 37 CC Apollo 8, Houston. We are down to 25 percent on your waste water dump and ready to terminate. Over.

01 05 49 45 CDR Roger.

01 05 51 01 CC Apollo 8, this is Houston. Over.

01 05 51 06 CDR Go ahead, Houston. Apollo 8.

01 05 51 08 CC Roger. Our next COMM test is ranging only test. I have four switches I would like you to throw, which will cause you to lose voice communications for approximately 3 minutes. Over.

01 05 51 23 CDR Roger. Go ahead.

01 05 51 26 CC Alright. The first one is S-band NORMAL mode voice, OFF; the second, S-band NORMAL mode PCM, OFF; the third, S-band NORMAL mode RANGING switch to RANGING; and fourth, the S-band AUX tape switch, OFF. Over.

01 05 55 48 CC Apollo 8, Houston. Request S-band NORMAL mode RANGING to OFF and S-band NORMAL mode PCM to PCM. I say again, S-band NORMAL mode RANGING, OFF; S-band NORMAL mode PCM to PCM.

01 05 56 17 CC Apollo 8, Houston. We'll stand by in this configuration for a moment.

01 05 58 30	CC	Apollo 8, Houston. Three communication switch positions. First, S-band AUX tape to DOWN-VOICE BACKUP; S-band NORMAL mode PCM, OFF; TELEMETRY INPUTS PCM, HIGH. I say again, S-band AUX tape to DOWN-VOICE BACKUP; S-band NORMAL mode PCM to OFF; TELEMETRY INPUTS PCM to HIGH.
01 05 59 05	LMP	Roger. Houston, this is Apollo 8. How do you read?
01 05 59 08	CC	Reading you weak but clear now, Bill.
01 05 59 14	LMP	Roger. We still have a bad look angle on this antenna.
01 05 59 28	CMP	Apollo 8, Houston.
01 05 59 30	CC	Apollo 8, Houston. Go ahead.
01 05 59 34	CMP	Please be informed that the ... Over.
01 05 59 41	CC	Apollo 8, Houston. Unable to copy. After about a minute of this configuration, we're going to return to normal voice, and at that time, we should be able to hear you better.
01 05 59 58	CDR	Roger. What ... are we going through right now?
01 06 00 17	CC	Roger. We are in Mode 7 dash 10, and the COMM test mode is on page 223. Over.
01 06 00 41	CC	Apollo 8, Houston. Three switch positions. TELEMETRY INPUTS PCM switch to LOW; S-band NORMAL mode VOICE to VOICE; S-band NORMAL mode PCM to PCM. I say again, TELEMETRY INPUTS PCM

switch, LOW; S-band NORMAL mode VOICE to VOICE; S-band NORMAL mode PCM to PCM. Over.

01 06 01 33	CDR	Roger. We're switching over to backup now.
01 06 01 35	CC	Reading you very weak.
01 06 01 46	LMP	We are reading you loud and clear, Houston.

END OF TAPE

APOLLO 8 AIR-TO-GROUND VOICE TRANSCRIPTION SPAN Room

(GOSS NET 1)

01 06 02 41	CC	Apollo 8, Houston. Requesting S-band NORMAL mode ranging to RANGING. I say again. S-band NORMAL mode ranging to RANGE. Over.
01 06 04 50	CC	Apollo 8, Houston. Requesting S-band NORMAL mode ranging to RANGING. Over.
01 06 05 04	CC	Apollo 8, Houston. Over.
01 06 05 17	CDR	Houston, Houston, Apollo 8. How do you read?
01 06 05 20	CC	Beautiful, Frank. I'm reading you loud and clear. How me?
01 06 05 39	CC	Apollo 8, Houston. How do you read? Over.
01 06 06 06	CC	Apollo 8, this is Houston. Over.
01 06 06 49	CC	Apollo 8, this is Houston. Over.
01 06 06 53	CDR	Go ahead, Houston. Apollo 8.
01 06 06 56	CC	Roger. Reading you loud and clear. How me?
01 06 07 00	CDR	You're loud and clear, Michael.
01 06 07 02	CC	Okay. We're still looking for the S-band NORMAL mode ranging to RANGING.
01 06 07 12	CDR	I guess we didn't hear that one. Going to RANGING.
01 06 07 14	CC	Roger.
01 06 07 16	CDR	It's in RANGING now.
01 06 07 18	CC	Thank you.
01 06 07 39	CDR	And - Houston, Apollo 8 - what size antenna are you going to now?
01 06 07 54	CC	Apollo 8, Houston. We're working through Ascension, a 30-footer. Over.

01 06 08 03	CDR	Okay. We - our signal strength is ... AGC is pretty low up here.
01 06 08 08	CC	Roger. Understand.
01 06 09 32	CC	Apollo 8, Houston. Requesting S-band OFF state to OFF. This should put us back in the normal configuration. Over.
01 06 10 32	CC	Apollo 8, Houston. Over.
01 06 10 38	CDR	Go ahead, Houston. Apollo 8.
01 06 10 39	CC	Okay. S-band OFF state to OFF. That returns us to normal configuration, and we need a couple of items from you. First, the CMP and LMP status report (including PRD readings on all three crewmembers), and we'd like to know did you chlorinate the water after your last meal. Over.
01 06 11 10	CDR	No, we haven't chlorinated the water, yet. We'll get the other for you.
01 06 11 13	CC	Roger. Thank you.
01 06 11 14	LMP	Houston, do you show the FM - Houston, Apollo 8 - do you show the FM on now?
01 06 11 22	CC	Stand by and we'll check it, Bill.
01 06 11 26	LMP	Because our S-band off state has been OFF. Possibly - we don't have control of it.
01 06 12 29	CC	Apollo 8, Houston. We've switched on all the communications switch; functions are operating normally, Bill.
01 06 12 37	LMP	Okay, Mike. Thanks.

01 06 12 43	CDR	Mike, the PRD readings for the CDR are 4 - that's 0.04, for the CMP is 0.64, and for the LMP is 0.25.
01 06 12 59	CC	Good. I copy 0.04, 0.64, 0.25. Thank you.
01 06 13 06	CDR	Roger.
01 06 22 25	CDR	Houston, this is Apollo 8.
01 06 22 33	CC	Go ahead, Apollo 8.
01 06 22 37	CDR	Oh, hi, Ken, how are you doing?
01 06 22 39	CC	Roger. Fine. How you been?
01 06 22 41	CDR	Is this Jerry?
01 06 22 42	CC	This is Ken.
01 06 22 44	CDR	Hey, listen, we still have this TV coming up here - let's see - 31:20?
01 06 22 52	CC	Affirmative.
01 06 23 00	CDR	We're about in the right position for high gain; we wondered if you wanted to take a trial run and see if it will work. Or do you just want to wait and try it when they're supposed to go on the air with it?
01 06 23 18	CC	Okay. Stand by on that.
01 06 23 23	CDR	Okay.
01 06 30 25	LMP	Houston, Apollo 8. Over.
01 06 30 27	CC	Go ahead, Apollo 8.
01 06 30 33	LMP	Roger. Could you ask the GNC to give us an update on our prop quantity, please?
01 06 30 41	CC	Wilco. You're referring to the RCS?
01 06 30 46	LMP	Roger.

01 06 30 53	LMP	If you'll give it to me kinda slow, I'll plot it.
01 06 30 56	CC	Roger. It's coming now.
01 06 35 13	CC	Apollo 8, Houston.
01 06 35 19	CDR	Go ahead, Houston. Apollo 8.
01 06 35 20	CC	Okay. In reference the early TV, we're loosing the high-gain antenna now, and it looks like the only way we would have gotten the early TV pass in anyhow was to send it to remote site and look at it there. So we're going to scrub that idea and we'll just pick up with the scheduled TV. The COMM checks that are remaining are the high-gain dependent type, and we'll put those off until the TV session is completed, and we are working on the fuel propellant curve for you now.
01 06 35 53	CDR	Thank you.
01 06 41 50	CC	Apollo 8, Houston.
01 06 41 53	CDR	Go ahead, Houston. Apollo 8.
01 06 41 54	CC	Okay, Apollo 8. What we're going to do on the TV is to go ahead and let you crank it up as soon as we get back on the high-gain antenna, and it looks like - my guess is that this will be about 31:07, and we'll just use this to - as long as we have the coverage there. I have an update to your TLI plus 35 PAD. Now we have to correct a couple of times on there. So when you get that out, let me know and I'll read it to you.

01 06 42 38	CDR	Go ahead.
01 06 42 40	CC	Okay. On the TMI plus 35 pass, the update I want to give you is the last three lines in the block: the EMS range to go 13084 35985 0984217. Over.
01 06 43 11	CDR	Understand. Range to go 13084 35985 0984217.
01 06 43 21	CC	Affirmative.
01 06 44 54	CC	Apollo 8, Houston. We are about to have a hand-over to Goldstone, and our downlink isn't improved then. I don't know if you'll notice any difference in the uplink or not.
01 06 45 52	CC	Apollo 8, Houston.
01 06 46 44	CC	Apollo 8, Houston.
01 06 46 48	CDR	Go ahead, Houston. You are loud and clear.
01 06 46 51	CC	Okay. We have switched sites over to Goldstone now. I don't know if you can tell any difference in our uplink.
01 06 47 01	CDR	Negative. You're about the same.
01 06 47 03	CC	Okay. You have cleared up quite a bit. Sounds a lot better to us.
01 06 47 08	CDR	Okay.
01 06 49 35	CC	Apollo 8, Houston.
01 06 49 38	CDR	Go ahead, Houston. Apollo 8.
01 06 49 40	CC	I have some RCS quantity data for you. We are all set up to receive the TV whenever you get high gain looking at us.

01 06 49 51	CDR	Okay. Let me get the chart out here.
01 06 50 20	CDR	Go ahead with the quad propellant quantities, please.
01 06 50 25	CC	Okay, Apollo 8. Alfa, I have 225 pounds, 74 percent; Bravo 240 - -
01 06 50 41	CDR	Slower, please.
01 06 50 42	CC	Roger. I will repeat. Alfa 225, 74 percent; Bravo 240 pounds, 79 percent; Charlie 236, 78 percent; Delta 238, 79 percent. I would like to remind you on the TV that we need narrow beam width when you get up in high gain. Over.
01 06 51 45	CDR	Roger. Understand.
01 07 07 18	CDR	Houston, how do you read? Apollo 8.
01 07 07 20	CC	Loud and clear, Apollo 8.
01 07 07 24	CDR	Okay. Thank you.
01 07 09 57	CDR	Houston, Apollo 8. How do you read?
01 07 09 59	CC	Apollo 8. Loud and clear and standing by.
01 07 10 04	CDR	Say again.
01 07 10 05	CC	We read you loud and clear, and we're standing by.
01 08 10 09	CDR	Okay.
01 08 10 23	CDR	Are you receiving television now?
01 07 10 36	CC	Apollo 8, Houston. We just got it.
01 07 10 43	CDR	You are getting it?
01 07 10 52	CC	Okay, Apollo 8. We have a good picture.

01 07 10 54	CDR	We're rolling a -
01 07 10 57	CDR	Okay. We're rolling around to a good view of the earth, and as soon as we get to the good view of the earth, we'll stop and let you look out the window at the scene that we see. Jim Lovell's down in lower equipment bay preparing lunch, and Bill is holding a camera here for us both.
01 07 11 29	CDR	Bill's going to take the camera down to the lower equipment deck with Jim.
01 07 11 34	CC	Roger.
01 07 11 37	CC	Okay. We're getting a pretty good picture, but if you'd move it a little slower - every time you move it around, it breaks up the scan.
01 07 11 47	CDR	We gotcha.
01 07 11 49	CC	(Laughter)
01 07 11 54	CMP	This is known as preparing lunch and doing P23 at the same time.
01 07 12 18	CC	You've got everybody standing on their heads down here.
01 07 12 23	CDR	How go - Has he got it turned upside down? You've got the wrong REFSMMAT.
01 07 12 31	CC	Well, we all have our problems.
01 07 10 44	CDR	How is the picture now, Houston?
01 07 10 46	CC	They are really good.
01 07 10 52	CDR	Okay. Now we are coming up on the view that we really want you to see. That's the view of the

		earth, and if you will break for just a minute, Bill is going to put on the large lens. So we will be right back with you.
01 07 13 03	CC	Okay. Thank you.
01 07 13 54	CDR	Houston, we are now showing you a view of the earth through the telephoto lens.
01 07 14 00	CC	Okay. We are not receiving a picture right now.
01 07 14 08	CDR	How about now?
01 07 14 14	CC	Okay. We don't have a picture yet.
01 07 14 27	CDR	You seeing anything at all, Houston?
01 07 14 36	CC	Okay, Apollo 8. We don't have a picture yet.
01 07 14 46	CDR	Alright. We will put the other lens back on, and we will show you that.
01 07 14 50	CC	Apollo 8, how about standing by on that for just a minute. Let's check our ground link.
01 07 15 06	CC	Apollo 8, we have a picture now.
01 07 15 10	CDR	Okay. Let's try the other lens again then, once again.
01 07 15 13	CC	Okay. Thank you.
01 07 15 30	CDR	Do you have a picture now?
01 07 15 31	CC	That's negative.
01 07 15 45	CC	Apollo 8, ...
01 07 15 54	CDR	Okay. Do you have anything, Houston? We have it on the earth.
01 07 15 58	CC	We are having no joy.
01 07 16 02	CDR	Okay. Stand by.
01 07 16 04	SC	Okay. How about now, Houston?

01 07 16 10	CC	Still no joy.
01 07 16 18	CC	You don't have a lens cover on there, do you?
01 07 16 22	CDR	No, we checked that, as a matter of fact.
01 07 16 30	CDR	Anything?
01 07 16 32	CC	Still no joy.
01 07 16 56	CDR	How about now?
01 07 16 57	CC	Still no joy. There is a picture. We have a picture. Okay. It is a little difficult to see what we have.
01 07 17 17	CDR	That is the earth, but it is not the telephoto lens, unfortunately. It is just a regular inside lens.
01 07 17 23	CC	Okay. It is coming in as a real bright blob on the screen. It is hard to tell what we are looking at.
01 07 17 31	CDR	You are looking through some haze on the windows too, unfortunately.
01 07 17 37	CMP	And the earth is very bright, besides.
01 07 17 41	CC	Okay. We got the earth in about the center of the screen and a little bit low, and it looked like there were some objects that moved across it - the screen at the same time. Do you have any comment on those?
01 07 17 54	CDR	That is some of the water - ice coming off the vent nozzle.
01 07 17 59	CC	Roger.

01 07 18 05	CDR	How does it look now?
01 07 18 06	CC	Still the same thing; it is - the target is extremely bright, and it is very difficult to make out what we are looking at.
01 07 18 16	CDR	It is unfortunate that we do not have - we can't make the other lens work here. I don't know what the problem is.
01 07 18 24	CC	Okay. Apollo 8, would you verify that the ALC is on?
01 07 18 33	CDR	We have tried it both ways.
01 07 18 35	CC	Oh, okay; thank you. What we are getting now is a good picture.
01 07 18 39	CDR	Say again.
01 07 18 44	CC	Okay. That's a - that's a real good picture. That is the best one that we have had. And how about going ahead and just leaving your pictures inside until we can think some more of what we can do to adjust for that light?
01 08 18 58	CDR	Roger. Jim, what are you doing here? Jim is fixing dessert. He is making up a bag of chocolate pudding. You can see it come floating by. Bill is coming up from the lower equipment bay. It is unfortunate that this telephoto lens doesn't work. Show them the lens that's the culprit here, Jim. This lens doesn't seem to be working; I can't understand why we're not -

perhaps it's a problem of light transmission through it.

01 07 19 56 CDR This transmission is coming to you approximately halfway between the moon and the earth. We have been 31 hours and about 20 minutes into flight. We have about less than 40 hours to go to the moon. You can see that Bill has his toothbrush here. He has been brushing regularly. To demonstrate how things float around in zero g. It looks like he plays for the Astros, the way he tries to catch those things. I certainly wish that we could show you the earth. It is a beautiful, beautiful view, with predominately blue background and just huge covers of white clouds, particularly one very strong vortex up near the terminator. Very, very beautiful. Perhaps we will get some assistance from the people on the ground and be able to deter - to determine why this other lens is not transmitting properly.

01 07 21 11 LMP Houston, did you get any light at all coming through that telephoto lens?

01 07 21 18 CC Apollo 8, we were getting what you were showing us on your normal lens, and I don't think we got anything on the telephoto. We are working on this now. One of the problems seems to be that